



wherein R3 and R4 are each independently a hydrogen atom or a tri (C₁ to C₇ hydrocarbon) silyl) group in the presence of a palladium catalyst, and optionally removing the protecting group of the tri (C₁ to C₇ hydrocarbon) silyl) group, and further wherein the vitamin D₃ compound derivative is

- (i) (20S)-1 α , 25-dihydroxy-2 β -methyl-3 β -vitamin D₃;
- (ii) (20S)-1 β , 25-dihydroxy-2 β -methyl-3 α -vitamin D₃;
- (iii) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 β -vitamin D₃; or
- (iv) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 α -vitamin D₃.